

Fredonia Mining Inc. Reports 2.248 M Oz Gold Equivalent* (M&I) Maiden Mineral Resource Estimate at El Dorado Monserrat Project, Argentina

Highlights significant potential for the Project; at a 0.40 g/t cut-off gold grade, the maiden mineral resource estimate totals:

- **In Pit Measured & Indicated Mineral Resource:** 81.348 million tonnes grading 0.61 g/t gold and 18.76 g/t silver (0.86 g/t gold equivalent^{*6}), containing an estimated 1.593 million ounces of gold and 49.067 million ounces of silver (2.248 million ounces of gold equivalent^{*6}); plus limited Inferred Mineral Resource.
- The estimate produces in-pit resources for the Northern Monserrat Sector and Southern Mineralized Corridor deposits, spaced just 5.0 km apart.
- Mineralization remains open in all directions and below the base of drilling at both the North and South sectors, showing clear scope for further drilling to increase the size of this initial mineral resource estimate.
- The resource estimate is based on 40,472.68 meters of drilling and 5,305.43 meters of trenches, intersecting the resource solids. These drillings are divided into 164 holes for a total of 27,504.22 meters for Northern Monserrat Sector and 55 holes for a total of 12,968.46 meters for Southern Mineralized Corridor (including only Herradura Hill target). Gold and silver grades for both sector, have been interpolated independently.

TORONTO, Nov. 11, 2024 -- Fredonia Mining Inc. ("**Fredonia**" or the "**Company**") (TSXV:FRED) announces its maiden Mineral Resource Estimate ("MRE") at its wholly-owned El Dorado Monserrat ("EDM") Project, Santa Cruz province, Argentina. The MRE includes the Main Vein, Abanico, Bajo Pedernal and Monserrat West targets at in-pit Northern Monserrat Sector, and only the Herradura Hill target at in-pit Southern Mineralized Corridor.

Estanislao Auriemma, CEO stated: "This transformative initial mineral resource estimate arose from our team's vision and perseverance and our investors' long-standing support. From the start we believed that we would be successful in defining a significant resource in one of the best gold/silver districts in Argentina, with the added bonus of being very close to AngloGold Ashanti's long-running world-class mine. While we now have a much better understanding of the gold/silver structures, we have just scratched the surface of our deposit and look forward to maximizing its potential for the benefit of our investors. Significant areas of mineralization were not able to be included in this maiden resource estimate and all targets remain open in all directions as well as at depth, where drilling showed us that the grade improves. As such, we feel confident that with continued work we can increase the size and quality of the resource. We therefore very much look forward to the upcoming exploration season."

TABLE 1. MINERAL RESOURCE ESTIMATE STATEMENT ⁽¹⁻⁶⁾

Category		Ktons	Au Eq* g/t	Au g/t	Ag g/t	Au Eq* Moz	Au Moz	Ag Moz
North	Measured	35,554.4	0.93	0.66	20.26	1.064	0.756	23.159
	Indicated	36,481.3	0.81	0.56	18.52	0.950	0.660	21.721
	Inferred	180.1	1.01	0.61	29.71	0.006	0.004	0.172
South	Measured	1,406.1	0.75	0.58	12.64	0.034	0.026	0.571
	Indicated	7,906.3	0.78	0.60	14.22	0.199	0.151	3.616
	Inferred	386	0.78	0.57	15.62	0.010	0.007	0.194
Total (M&I)		81,348.1	0.86	0.61	18.76	2.248	1.593	49.067
Total (Inferred)		566.1	0.85	0.58	20.10	0.015	0.011	0.366

Note: Ktons: thousands of tonnes.
Moz: millions of ounces.
Figures may not add exactly due to rounding.

(1) Mineral resources which are not mineral reserves do not have demonstrated economic viability. The estimate of mineral

resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. It is noted that no specific issues have been identified as yet.

(2) The quantity and grade of reported Inferred mineral resources in this estimation are uncertain in nature and there has been insufficient exploration to define these Inferred mineral resources as an Indicated or Measured mineral resources and it is uncertain if further exploration will result in upgrading them to an Indicated or Measured mineral resource category.

(3) Mineral Resources were estimated utilizing S-Gems and Rec-Min software and conventional block modeling within 3D wireframes defined on a 0.40% gold cut-off, capped composites and inverse distance grade interpolation.

(4) The mineral resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.

(5) The 0.40% gold resource cut-off grade was derived from long term average Gold price of US\$1,800/oz, 90.0% process recovery, 4.5% royalties, US\$ 7.0/t process cost, US\$ 5.0/t transportation & refining and US\$ 4.0/t G&A cost. An optimized pit shell was utilized for resource reporting that utilized a US\$ 2.0/t mining cost and 45 degree pit slopes.

(6) Gold grade equivalent (Au Eq) is derived from gold metal price US\$1,800/oz, and silver metal price US\$24/oz. Au Eq assume Au and Ag recoveries of 90.0%. The limited metallurgical studies by Fredonia (selective Bottle rolls from Main Veins material) have indicated high (>90%) recovery of gold in oxide material. The Cerro Vanguardia mine to the east of EDM with similar mineralization reports recoveries in the high 90% for Au. Accordingly, the formula used for gold grade equivalent (Au Eq) is:

$$\text{Au Eq (g/t)} = \text{Au (g/t)} + [\text{Ag (g/t)} \times (24/1,800) \times (0.9/0.9)]$$

The modeling and geostatistics analysis of the deposit was carried out using four different software packages: RecMin and S-Gems (kriging and block model construction, modeling and exploratory data analysis, model validation) and GSLIB and AlphaRho (variography and exploratory data analysis).

Log - probability graphs were used in conjunction with the statistical distribution of the different populations to define the threshold to cap the outliers of the studied populations. The objective is to limit the influence of very high values on the interpolation of grades.

To estimate gold and silver, it is necessary to bring all sample lengths to a constant length. All samples have a constant support equal to 1.0 meter.

The North and South geological models are open in all directions, so they do not allow the spatial delimitation of mineralization.

The indicator method was used to find the limits of the three-dimensional body; then, ordinary kriging is the best linear estimator of the grade of a three-dimensional set.

The block model contains unit blocks of 5m x 5m x 5m, a reasonable value for this type of deposits. Kriging assigns a weight to each sample and these weights are calculated in such a way as to minimize the estimation error.

From the specific gravity tests, the constant value of 2.61 ton/m³ was used for the two northern and southern sectors.

The method used to the mineral resource categorized (Inferred, Indicated and Measured) is based on the relative geostatistical estimation error (for gold) of each unit block.

The Mineral Resource Estimate was derived from applying a gold cut-off grade to the block model and reporting the resulting tonnes and grade for potentially mineable areas.

A 0.40 g/t Au lower cut-off grade inside a US\$1,800 optimised open pit has been used to report that part of the MRE that has reasonable prospects of future economic extraction via open pit mining. The surface optimization parameters reflect internally researched costs and assumptions for similar style projects in Argentina.

Open Pit gold Cut-Off Grade Calculation:

A. Gold price	US\$1,800/oz
B. Ore Mining cost	US\$ 2.0/t
C. Waste Mining cost	US\$ 2.0/t
D. Process cost	US\$ 7.0/t
E. Transportation & Refining	US\$ 5.0/t
F. General & Administration	US\$ 4.0/t
G. Gold Recovery	90.0 %
H. Royalties	4.5 %

Therefore, the gold cut-off grade for the open pit resource estimate is calculated as follows:

Cut-Off Grade: $(B+C+D+E+F) / (A \times G \times H) = 0.40 \text{ g/t Au}$

The resulting MRE is tabulated in Table 1 above. The qualified persons for the estimate (“QPs”) consider that the mineralization of the El Dorado Monserrat Project is potentially amenable to open-pit extraction.

Project-specific metallurgical test work for metal recovery is at a very preliminary stage at El Dorado Monserrat. Six cyanidation tests were conducted on different grind sizes on 1,000 g charges. After 48 hours, gold recoveries ranging from 92.1% to 97.3% were achieved, while silver recoveries ranged from 62.1% to 83.7%, varying according to grind size and cyanide concentration. The Cerro Vanguardia mine to the east of EDM with similar mineralization reports recoveries in the high 90% for Au.

Mineral resources are sensitive to the selection of the reporting criteria for the gold cut-off grade. The sensitivities of the cut-off are demonstrated for the North and South pits constrained resource in following table:

TABLE 2. SUMMARY OF SENSITIVITY RESULTS FOR GOLD CUT-OFF GRADE

Cut-off	Ktons	Au Eq* g/t	Au g/t	Ag g/t	Au Eq* Moz	Moz Au	Moz Ag
0.1	131,223.6	0.71	0.49	16.53	3.016	2.086	69.754
0.2	128,674.0	0.72	0.50	16.73	2.995	2.072	69.224
0.3	110,174.7	0.78	0.54	17.48	2.747	1.921	61.916
0.4	81,348.1	0.86	0.61	18.76	2.248	1.593	49.067
0.5	46,884.5	1.02	0.72	21.87	1.534	1.092	33.111
0.6	21,994.5	1.24	0.93	23.74	0.878	0.654	16.786
0.7	12,666.9	1.45	1.13	24.06	0.592	0.461	9.797

Notes: the base case estimate presented above is subject to the same assumptions and qualifications described in Notes 1-6 of Table 1 above.

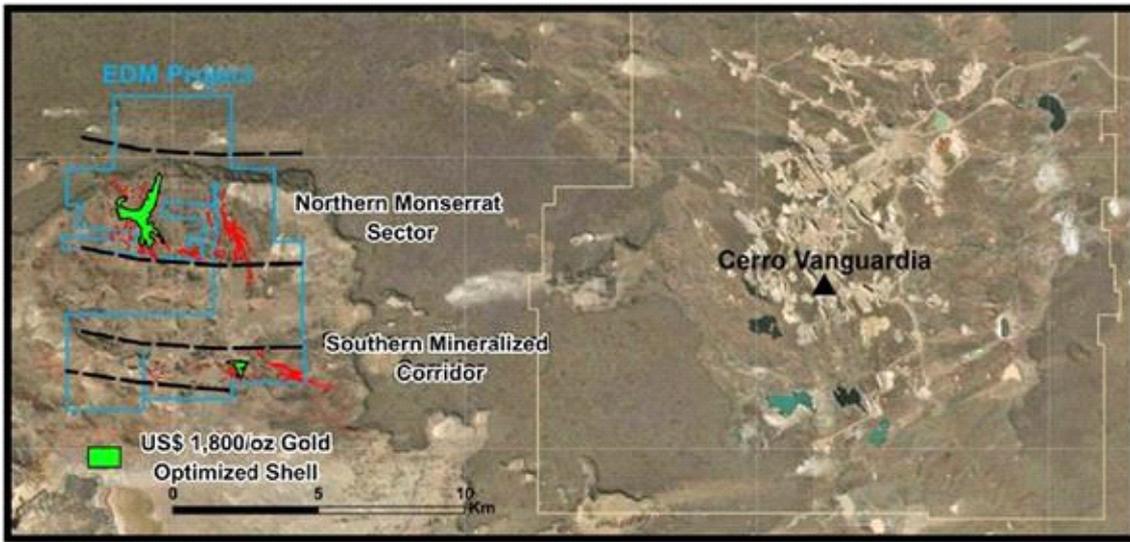


Figure 1. Plan view of the north and south deposits (resource area in green) and their proximity in relation to the Cerro Vanguardia Mine.

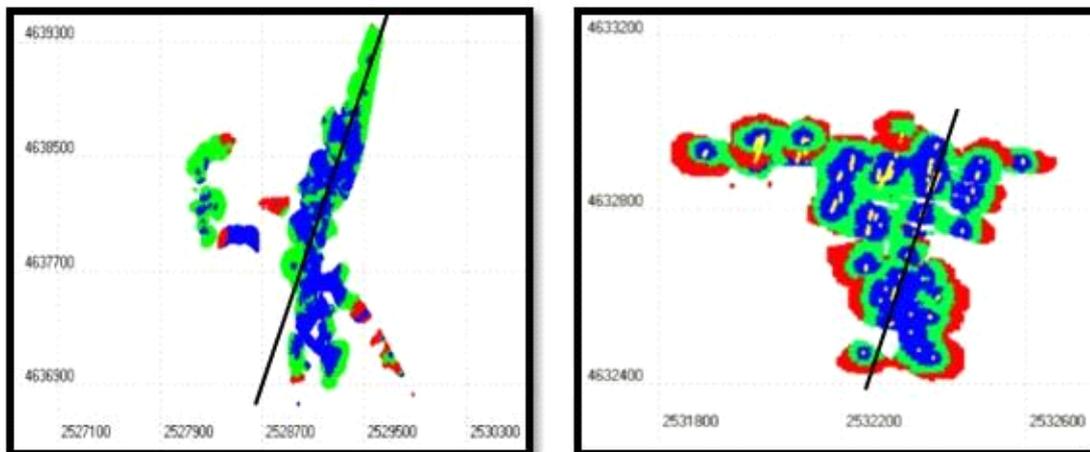


Figure 2. Plan view of the north and south deposit at El Dorado Monserrat. (Blue measured, green indicated, red inferred).

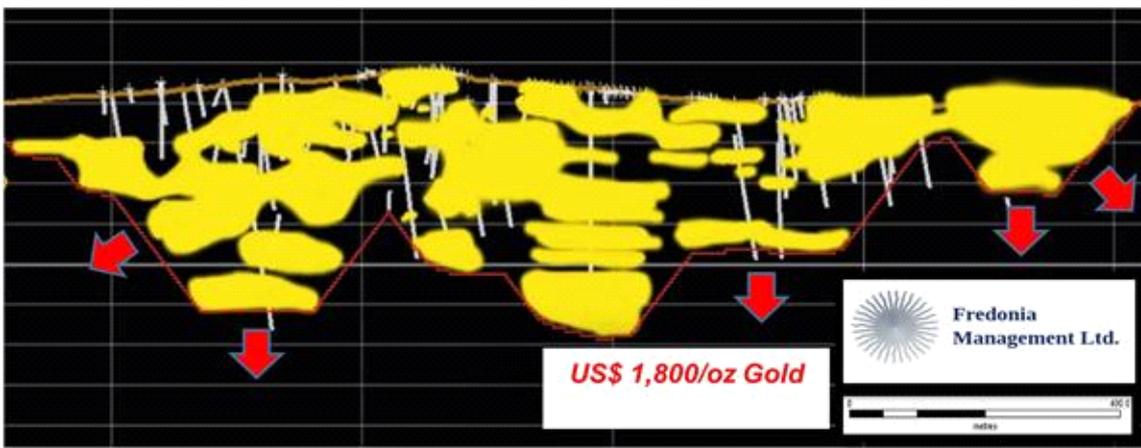


Figure 3. Gold grade Shell with a view to the West. Long Section of the MRE at Northern Monserrat Sector.

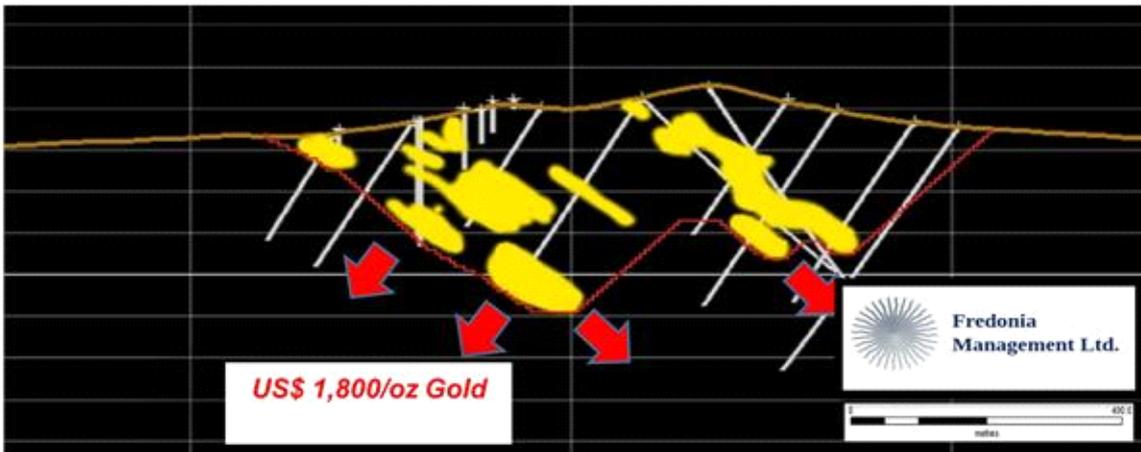


Figure 4. Gold grade Shell with a view to the west. Cross Section of the MRE at Southern Mineralized Corridor (included only Herradura Hill).

Preparation of Mineral Resource Calculation

The mineral resource estimate was prepared by independent QP Mario Alfaro Cortés of Chile, commissioned by Fredonia Mining, and is calculated for two deposits, North and South. The estimate was prepared according to NI 43-101 standards and the CIM Standards on Mineral Resources and Reserves: Definitions and Guidelines (CIM 2014).

Quality Assurance/Quality Control

All core samples were submitted to the principal Alex Stewart Laboratories in San Julián city for preparation and in Mendoza city for the analysis. All samples were analyzed for Au and Ag by fire assay/ AA finish 50 g, plus a 39-element ICP-AR finish. Fredonia followed industry standard procedures for the work with a quality assurance/quality control (QA/QC) program. Blanks and reference material of High grade/ Low grade Gold and High grade/ Low grade Silver standards were included with all sample shipments to the principal laboratory. Field duplicates were made from coarse reject. Fredonia detected no significant QA/QC issues during review of the data.

Mr. Fernando Ganem, is a QP as defined by Canadian National Instrument 43-101. Mr. Ganem visited the property and has read and approved the technical contents of this release.

Data Verification

Mr. Ganem has previous experience with the EDM property and the historical QA/QC procedures undertaken for the preparation of previous results and has previously conducted the verification activities on drilling and sampling results described in Fredonia's technical report entitled "Technical Report on the El Dorado-Monserrat Property in Santa Cruz Province, Argentina" dated February 15th, 2021.

Mr. Ganem was physically present to inspect and take verification samples from drill core in the most recent drilling campaign, and verify drill results against data-base information provided by management to ensure the assay results presented are those in the database. Digital 'original' final assay reports (certificates) were provided to the QP at the time of disclosure for verification.

About Fredonia

Fredonia holds gold and silver license areas totaling approximately 18,300 ha. in the prolific Deseado Massif geological region in the Province of Santa Cruz, Argentina, including the following principal areas: its flagship - the advanced El Dorado-Monserrat project (approx. 6,200 ha.) located close to AngloGold Ashanti's 300,000 oz./yr Au-Ag Cerro Vanguardia mine, the

El Aguila project (approx. 9,100 ha.), and the Petrificados project (approx. 3,000 ha).

For further information: Please visit the Company's website at www.fredoniamanagement.com or contact: Estanislao Auriemma, Chief Executive Officer, Direct +54 91 149 980 623, Email: estanislao.auriemma@gmail.com.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Cautionary Note Regarding Forward-Looking Statements

This press release contains certain "Forward-Looking Statements" within the meaning of applicable securities legislation relating to the Company and the EDM project, including statements regarding the prospectivity of the EDM project for gold and silver mineralization, including the potential for metal recoveries from any mineral processing activity, the mineral resource estimate at the Project, and the Company's future exploration plans. Words such as "might", "will", "should", "anticipate", "plan", "expect", "believe", "estimate", "forecast" and similar terminology are used to identify forward looking statements and forward-looking information. Such statements and information are based on assumptions, estimates, opinions and analysis made by the Company considering its experience, current conditions and its expectations of future developments as well as other factors which it believes to be reasonable and relevant. Forward-looking statements and information involve known and unknown risks, uncertainties and other factors, including, without limitation, the factors described in the Company's filing statement dated June 22, 2021 available on SEDAR at www.sedar.com under the heading "Risk Factors" that may cause actual results to differ materially from those expressed or implied in the forward-looking statements and information and accordingly, readers should not place undue reliance on such statements and information and the Company can give no assurance that they will prove to be correct. The statements in this press release are made as of the date of this release. The Company undertakes no obligation to update forward-looking statements made herein, or comment on analyses, expectations or statements made by third parties in respect of the Company or its securities, other than as required by law.

Photos accompanying this announcement are available at

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